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Author:

Security Trust & Savings
Bank

Title:

The cattle-raising industry
of the Southwest

Place:

Los Angeles

Date:

1921

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Security trust & savings bank, Los Angeles. Department of research and service.

The cattle-raising industry of the Southwest. Department of research and service, Security trust & savings bank. Prepared by C. C. Lincoln. Los Angeles (Security trust & savings bank) 1921.

24 p. diags. 24 cm.

1. Cattle trade—Southwest, New. 1. Southwestern states—Cattle trade.
1. Lincoln, Chester C., comp.

Library, U. S. Dept. of

Agriculture 43Se23 Agr 22-1130
ts24b1

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The cattle-raising industry of the South-
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Prepared by
C. C. LINCOLN

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The Cattle Industry in the Southwest

THE importance of Los Angeles as a live stock center of the great Southwest needs no argument. Surrounded by the vast ranges of Nevada, Arizona and Southern California, and with adequate rail service linking these sources of production with the abundant alfalfa pastures and beet fields of the southern coast, Los Angeles has become conscious of her strategic situation. Growers of the neighboring citrus belt bid for the nitrogenous refuse of feed lots, modernly equipped packing plants are at hand for the reduction of animals to food, a million people within immediate reach assure an unfailing market for beef and by-products, and the regular service of refrigerator ships and railway cars to the high price beef markets of the East would guarantee an outlet for any possible surplus.

Cattle raising is directly and indirectly a source of great wealth to the City of Los Angeles and environs. Any danger to this essential industry, such as is threatened by the recent decline of cattle prices to below cost of production, must be met. This can only be accomplished by proper financial support, and by the intelligent co-operation of the general public.

In view of these facts, and in keeping with the purpose of the Security Trust & Savings Bank carefully to gather data and to publish from time to time unbiased information upon agricultural and industrial conditions, and other subjects of business import, the following report of conditions now existing in the cattle raising industry of the Southwest has been prepared.

Sources of Information

Investigation of the industry has included conferences with cattle raisers, officers of packing houses, cattle loan associations, feed yard owners, butchers and cattle buyers. From a review of the opinions thus collected there is presented what is thought to be a fairly accurate picture of the present situation as it appears to various interests involved.

To determine actual statistical facts, census reports have been examined and compared to ascertain the number of cattle in various regions, with particular reference to their increase or decrease. Price trends have been established by examination of records kept by stockmen, packers and retail meat buyers, and from current market reports. Recourse has been had

to publications of the United States Department of Agriculture and of Federal Reserve Banks for information concerning crop and weather conditions in different sections of the Southwest. Comparative periodical receipts of beef cattle at slaughtering centers, and shipments of stocker and feeder cattle back to the ranges have been determined from similar official sources. To discover the volume of cattle paper dealt in by cattle loan associations and by banks rediscounting through the Federal Reserve Banks, access has been had to books of loan associations at Los Angeles, and records of live stock paper kept by the Federal Reserve Bank at San Francisco. Data concerning present conditions existing in cattle regions, such as

shortage of feeders and abnormal slaughter of female stock, have been furnished through the co-operation of such organizations as the California Cattlemen's Association, the American National Live Stock Association, and the Institute of American Meat Packers.

Financial Difficulties

Beef cattle producers are undergoing a period of deflation and of liquidation at prices under cost of production not unlike that being experienced by farmers, and indeed by most other producers in the country. The suffering among cattle raisers, however, is apparently more acute and relief more difficult to obtain. Their products have been probably the first to drop to a pre-war price, and the usual sources of financial aid have become more and more inaccessible. Stockmen now find themselves with cattle on hand raised during the period of highest production costs, with feed, interest, labor and railroad rates from 50% to 90% above normal, and a present market for their stock which has reached a point below normal after a precipitate drop of 50% in eight months. In short, cattle which were produced at a cost of 8c per pound and which were selling at 12c per pound last year cannot be disposed of now for more than 6c on the hoof. Stock raisers are confronted with this situation at a time when they are in urgent need of funds for the purchase of bulls and new stock to rehabilitate their herds, and for the payment of ordinary running expenses this fall and winter, and they find money almost unobtainable. Few banks are disposed to purchase cattle paper, and those cattle loan associations which are willing to make new loans, are demanding a prohibitive rate of interest. Moreover, these same loan associations are calling in matured loans as rapidly as possible, forcing cattle raisers to sell off their cattle at any price obtainable, further depressing a badly demoralized market. Under such circumstances the stockmen have two alternatives: to obtain money to enable them to hold over for better prices, or to sell off everything at any price. Money cannot be obtained, therefore the latter course is being resorted to by many. Everything is

being sold that the packer will buy, lean steers, breeding cows, heifers and calves.

Decline of Prices

The present low level in cattle prices is the logical economic result of inflated values and over-production during the war and the period immediately following. Cattle prices reached bottom before prices of most other commodities, partly because of unsound credit expansion permitted by cattle loan associations and by some of the banks during the war, and partly because of the unprecedented decline of by-products values, a decline which in the case of hides amounted to 75%. Another cause has been a marked falling off in the per capita consumption of beef, thought to be due in part to the failure of butchers to reduce retail prices in consonance with cattle and wholesale meat prices.

Average prices of cattle received by producers of the United States are given by the United States Department of Agriculture as \$6.01 (per 100 lbs.) for the year 1912; \$10.84 for 1919, and \$5.65 for June 15, 1921, showing a rise of 80% from 1912 to 1919, and a drop of 48% from the peak to a present price of 6% under that of 1912. California prices were \$6.75 in 1912, \$12.00 in 1918 and \$6.00 in August, 1921, indicating a rise of 75% from normal to the peak, and a later drop of 50% to a point 12% below the pre-war figure. Meanwhile hides rose from \$15.00 (per 100 lbs.) before the war, to \$30.50 in 1919, and declined to \$5.20 in March of this year.

Average retail meat prices in Los Angeles increased from 20c per pound in 1914 to 42½ in 1920, and have fallen to 26½c in August, 1921, representing a rise of 113% to the highest point, and a subsequent decline of approximately 37% to a point 32% above normal.

Production Costs

Costs of production are still above normal. The principal factors are feed, interest on money, and labor. Range pasture which could be leased at 75c per acre before the war and at \$1.25 during the war, can now be had at \$1.00. Feed yard charges which were 25c per animal per

day before the war, and 60c in 1919, have been reduced to 40c. Interest rates on cattle paper which advanced from 8% to 10-12% in 1920, are still at 10%. Alfalfa hay in the stack now costs about \$6.00 per ton. This is practically the only cost factor which has been reduced to a pre-war price.

The decline in labor costs has been about 35%. Cowboys who were paid \$30.00 per month before the war and \$90.00 in 1919-20, can now be hired for \$55.00. It is not probable that there will be a further considerable decline in wages, but the labor item in cattle raising is comparatively of little weight.

By a process of giving to each cost factor its proportionate weight in the total cost of production, it may be calculated that the weighted average cost of raising cattle is still 50% above normal.

Conditions in Different Sections of the Southwest

Live stock producers in California, Arizona and Nevada have suffered less from the price decline than those of other cattle states. The fact that western cattle are mostly "range fattened" has made it possible for raisers in this region to hold their animals for better prices without incurring heavy expenses for feed. Comparatively few substantial stockmen in the West have been forced into liquidation, though all are seeing hard times. Failures have occurred for the most part among speculators operating with very little capital of their own, but with funds borrowed at excessive interest rates. The elimination of such individuals will have a health-restoring effect on the industry as a whole.

Arizona has been hard hit by the drouth this spring and cattle raisers in the south have lost as high as 25% of their stock. Rains have come at last, however, and pasture conditions are now said to be excellent. Agents of the United States Department of Agriculture report pasture conditions in Nevada at normal, and in California at about 85% of normal.

Possibility of Cattle Shortage

The much talked of shortage of cattle is more apparent than real. It is true that the per capita number of cattle now on the ranges is considerably less than that of last year and slightly under the pre-war normal, the per capita decrease since 1910 having been 15% for California, 23% for Arizona, and 5% for the United States as a whole, while an actual increase of 23% is shown for Nevada. Meanwhile annual per capita consumption of beef in this country has fallen from 78 pounds to 56½ pounds, a decline of about 27%, and exports of beef products have declined 75% since the spring of 1920. The alleged shortage of production is therefore entirely a numerical one, and does not take into consideration the relative decrease in demand for beef and beef products.

Price Outlook

The price outlook for the future is hopeful. Exports of beef during August showed an increase over those of July. The recently imposed 30% ad valorem duty on imported beef cattle will restrict any increase in supply from Canada and Mexico. Surplus stock has been largely disposed of, and prices at Chicago have already taken an upward turn.

Necessity for Improved Methods of Finance

One of the most important needs of the cattle industry is for a permanent and adequate system of financing. Longer term loans, on a sound basis of valuation, reasonable interest rates, and a more fluid discount market for cattle paper are the essentials. Present interest rates are too high to permit of a safe margin of profit for the producer, and terms not long enough to allow him to bring his cattle to a selling value over cost of production. Cattle loans must be made on a sounder basis of valuation than has often been the practice heretofore, so that cattle paper, enjoying easy liquidity, may bear a lower rate of interest.

The \$50,000,000 cattle loan pool formed at Chicago on June 15 to be contributed

to by banks all over the country and administered by the Bankers Live Stock Loan Corporation, can only be considered a step in the right direction. The amount subscribed is of course inadequate for the financing of an industry of such magnitude as that of live stock raising. It is supposed, however, that the initial subscription is to serve merely as a nucleus for the development of a more ample fund if the wisdom of the undertaking is demonstrated. Participation in the pool by large banks all over the country will stimulate new interest in the cattle industry, and investigation of loan methods now under way should do much to reveal and eliminate unsound practices. It is to be expected that an industry such as cattle raising, which is so closely allied with an industrial activity representing a greater annual production in value than any other one business in the United States—that of meat packing—will gain the confidence of bankers and come to enjoy the same financial support that is afforded other essential industries.

Relative Importance of Cattle to the Southwest

Although California is primarily an agricultural state, it ranks fifth in number of head and fourth in valuation of cattle among the beef producing states of the Union, being outranked in number only by Texas, Iowa, Nebraska and Kansas. The number of cattle (other than milk cows) in California this year is estimated by the United States Department of Agriculture to be 1,683,000, or 3.9% of all beef cattle in the country. The value is estimated at \$74,052,000. Arizona has approximately 1,000,000, and Nevada 540,000 head, representing 2.6% and 1.3%, respectively, of the total in the United States. Together the three states, California, Arizona and Nevada, therefore produce 7.8% of the country's beef. Among farm products of the state of California, the 1920 census indicates that beef cattle rank fifth in value, being preceded only by hay, orchard fruits, citrus fruits, and grapes, in the order given.

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Future of the Industry

The margin of profit to be realized from cattle raising in California has become narrow. Competition of agricultural and horticultural products has steadily forced live stock raisers to the less fertile areas, and the cost of leasing land, or of interest on purchase money, has risen to the point of bringing cost of production too near to possible selling price. Cattle interests must work toward a classification of ranges, whereby stock will be bred and raised through the first two years on cheap ranges or possibly on free grazing districts or forest reserves, leaving the more expensive finishing off or fattening process for producers of alfalfa hay and sugar beet and cotton growers, who have a steady supply of inexpensive feed as by-products of their respective enterprises. In other words, the part to be played by this state in the cattle raising industry must be largely that of a feeding ground for fattening grown animals. Arizona and Nevada, with their vast areas of cheap grazing land and contiguous government ranges, are better adapted for breeding grounds, where calves may be produced and raised until ready for market fattening, when they may be shipped down to the alfalfa districts of Southern California and the sugar beet fields of the coast. Another necessity to the cattle industry of this state is the development of well-bred stock. As the margin of profit becomes narrower, the amount of beef produced per dollar expended must be increased, which can be accomplished only by raising cattle capable of taking on weight readily.

Los Angeles is apparently destined to become the center of the meat packing industry on the Pacific Slope; first, because it is becoming more and more surrounded by cotton fields, alfalfa pastures, and sugar beet plantations, which may be counted upon to furnish a steady supply of inexpensive and good feed; and, secondly, because it is the nearest common shipping point accessible to the large cattle and sheep ranges of the Southwest.

Principal Factors in the Cattle Industry

Distribution of the Cattle Supply

Cattle are raised in every corner of the world, but only a few countries are important sources of international meat supply. India, for example, with 130,000,000 cattle, has more than any other two countries combined, with practically no beef exports. Most of the Indian cattle are

next to India in the number of cattle raised, followed by Russia, Brazil, Argentina, Germany, France, Australia and Canada, in the order named.

According to the Bureau of Crop Estimates, there are 42,870,000 head of cattle (other than milk cows), valued at \$1,346,665,000, in the United States this year. Texas, with 4,547,000 head (11% of all in the country) has nearly as many as any other two states together, followed by Iowa, with 2,969,000 head, Nebraska with 2,650,000, Kansas with 2,075,000, and California ranking next. Arizona ranks fourteenth on the list of forty-eight states. Other cattle raising states, in order of their importance, are: Minnesota, Missouri, Wisconsin, New Mexico, South Dakota, Illinois, Colorado, Oklahoma, Ohio, Montana, Florida, New York, Alabama, Georgia, Michigan, Louisiana and Wyoming. It is interesting to note that

New York, with 882,000 head, has more cattle (other than milk cows) than Wyoming, one of the so-called cowboy states, which has only 720,000 head.

In California beef cattle raising is found in nearly every county, in many cases so



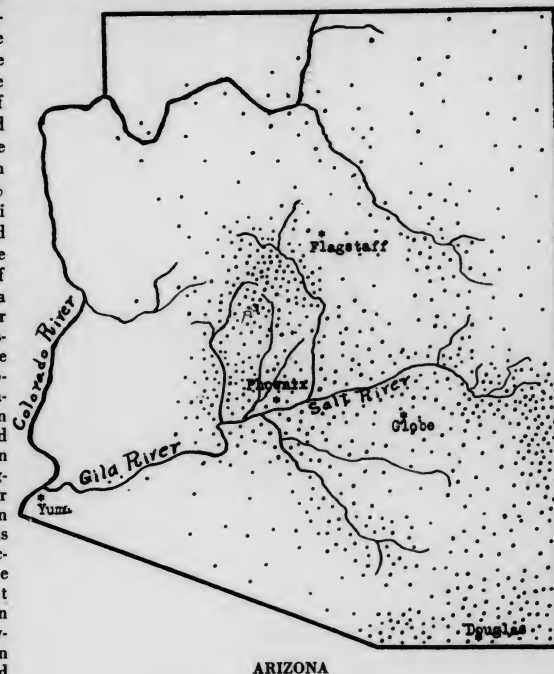
closely allied with dairy farms that separate figures for meat and dairy animals are difficult to determine accurately. According to the government census survey of 1920, the industry is most intense in the San Joaquin Valley counties of Kern, Merced, Tulare and Fresno, and the coast counties of San Luis Obispo, Monterey and San Diego. The accompanying map shows more completely the general distribution over the state.

The cattle of Arizona are more or less concentrated about the Salt River Valley and other smaller tributaries of the Gila River. The general aridity of the state makes it necessary to seek the localities which have the

best water supply. There are very few cattle in the large desert counties of Mohave and Yuma. Of the entire number in the state, 18% are in Yavapai County, around Prescott, at the headwaters of the Hassayampa River. Other important districts are in the southeast, in Cochise and Graham counties, on the Mexican and New Mexican borders. Flagstaff is the center of the northern region, which is important on account of large government ranges. Cattle in the north, however, have been largely displaced by sheep. Phoenix, on the Salt River, is the beef marketing and packing center

for the entire state, though many cattle are shipped regularly to Los Angeles for slaughter.

In Nevada the cattle region most densely stocked is Elko County, at the northeastern corner of the state, between the headwaters of the Humboldt River and close to the Idaho and Utah boundaries. Another important region is in Humboldt County, in the northwest, on the Oregon line. The counties immediately bordering on California are relatively unimportant, although the irrigated district around Carson City is a feeding center of some importance



ARIZONA

Distribution of Beef Cattle, Census of 1920

1 dot=1000 head of Cattle

Methods of Raising Beef

In the process of raising and fattening beef cattle, there are three types of feeding. These are employed in rotation, each at its appropriate season of the year. The first is mountain range feeding, beginning with the summer months, after the snow has melted and green grass has come up. The mountain range is the primary breeding ground of the cattle and the place where the beef crop is begun. Wild grass is of course the least expensive kind of feed, but not always the most economical for the production of high-grade beef, unless supplemented by other kinds of fat-producing feed. Mountain ranges are found extensively in the northern part of California, as well as along the eastern boundary of the state toward Nevada and Arizona, and in the Coast and San Bernardino Ranges. There are also large ranges in the region between San Diego and the Imperial Valley.

The second type of feeding is known as valley grass forage. As the winter approaches the herds are driven down from the mountain ranges into the valleys, where they are fed on grass freshened by summer rains. It is the policy of stockmen to keep their cattle off of these valley grass pastures during the summer so that the feed may be preserved for winter. In times of stress like the present, however, winter reserves are apt to be used up during summer. Stockmen, holding their cattle for higher prices, try to feed more animals than their ranges will support. When the summer pasture has been exhausted, the temptation is to turn the herds into the pastures which should be kept for winter use. Such practices may bring disastrous results later in the season. As the winter approaches, the owners must either buy grain or other dry feed on the market, at high winter prices, or

sell off surplus stock for beef regardless of their condition and market value. Such a situation may have to be faced this winter in Southern Arizona, where failure of pasture on account of the spring drouth forced cattle raisers to draw heavily upon their winter reserves.

"Dry-lot feeding" is the final process in bringing into market condition those cattle which it has been impossible to fatten on grass. This type of feeding is usually engaged in by intermediaries called "feeders," who are usually independent of the stockmen and the packers. The stock raisers, running their herds in the mountains in summer and fattening them in the valleys in fall and winter, usually select those ready for market as they come into condition and sell them for beef, retaining a certain percentage for reproductive purposes, so that the herds may be perpetu-



NEVADA

Distribution of Beef Cattle, Census of 1920

1 dot=1000 head of Cattle

ated. Older cows and steers not fat enough for market, are culled out and sold to feeders. These animals of course do not bring as much per pound to the raisers as do fat cattle, but it is often more economical to pass them on to persons engaged in "priming" than to put them through another season of fattening on the range. In the Middle West "feeder-cattle" are primed on corn, but in California and Arizona alfalfa hay, sugar beet tops and pulp, and cotton-seed meal are used. These feeds produce a grade of beef not far inferior to that produced by corn. Naturally many feed-lots are found in the sugar beet districts, as along the coast near Los Angeles, where sugar producers engage in feeding as a means of utilizing surplus beet tops and pulp. Other feeding centers are in the San Joaquin and Imperial Valleys in California and the Salt River Valley in Arizona, in proximity to the large alfalfa and cotton fields. The Salt River and Imperial Valleys are doubly important as feeding districts, for the reason that they have both valley grass pastures and dry feeding lots, where cotton hulls, cotton-seed meal and alfalfa hay are used.

Grass Range States

California, Arizona and Nevada are primarily "grass-range" states, as distinguished from the corn-feeding states of the great Middle West, such as Iowa, Kansas, Missouri and Nebraska. In these mountain states of the West where cattle are fed largely on natural pasture, many are sold directly from the range to the packer. This means less expensive feeding in the long run, but a poorer grade of beef on the whole, and a longer period of turnover. The corn feeder buys grown animals, fattens them in a few months, and gets his money. The ranger raises his beef from calves, runs them out over the mountains while growing, and sells at the end of from 3 to 5 years.

The range method of raising stock involves the uncertainty of climatic conditions. In extremely severe winters, for instance, cattle on the open range will die in large numbers, and in summer drouths the death rate will be equally high from lack of feed and water. The winter of 1920 saw an average for the United States

of 18.4 deaths from exposure per 1000 cattle. For the comparatively mild winter of 1921 the average dropped to 9.3 deaths per 1000 head for the entire country. Arizona, however, reported more losses from exposure in 1921 than for any of the past 10 years, the estimate being 70 per 1000, compared with 10 per 1000 in California and 16 per 1000 for Nevada.

A comparison of figures for the different cattle raising states indicates that Arizona is particularly unfortunate in losses from disease and exposure, while California and Nevada are at about the average. The most fortunate states are those of the Middle West, which provide shelter for their animals and which do not have to depend upon the local weather conditions for feed. Arizona also suffers heavily from drouth, as it has done this year. Pasturage on July 1, 1921, was reported by the United States Department of Agriculture to be only 50% normal in that state, as compared with 86% in California and 101% in Nevada.

Though the western ranges are of low carrying capacity, requiring from 15 to 40 acres of pasture per animal, depending upon the degree of rainfall, the much greater area of land available for use at low cost makes up for the small production per acre. California, Arizona and Nevada are fortunate in possessing large tracts of national forest reserve pastures, upon which stockmen are permitted by the government to graze their cattle at a comparatively small rental, usually a little over \$1.00 per head a year. The acreage in National Forest Reserve in these states, with estimated grazing capacity and charges per head of cattle, is shown by the following table for 1919:

State	Acres in Forest Reserve	Number of Cattle Grazed	Average Yearly Charge per head
Arizona	11,154,923	343,425	\$1.00
California	18,814,659	230,350	1.30
Nevada	4,971,335	87,735	1.20
Total	34,940,917	661,510	

Cost of Production

The cost of raising beef cattle varies with the cost of feed, interest rates on cattle paper, and the price of labor. The percentage of total cost represented by each one of these factors is approximately

as follows, under typical conditions in the Southwest:

Feed	55-70%
Interest	25-15%
Labor	10- 5%

The feed factor is subject to the widest variations, due both to the continual fluctuation of prices of hay and pasture, and the varying climatic conditions which make the amount of feed an uncertain element. The cost of feed is therefore not only the largest factor in production cost, but it is a variable which never can be determined by the stockmen beforehand. Consequently he must take long chances. In years of heavy rainfall and favorable climatic conditions, he may be able to fatten his cattle on comparatively cheap range grass, and make huge profits. In a season of drouth or severe blizzards he may lose 10% of his animals, and be put to the necessity of buying expensive hay to fatten or save those remaining. In such a case he would have to sell at a price below cost of production and his losses would be great.

In the days of the vast areas of free ranges good profit could be realized on cattle. The only uncertain factors were the weather and the selling price of beef. The comparatively steady demand for meat insured a fairly stable price for cattle, and the large profits in good years more than covered losses during a bad winter.

Free pasture has rapidly become scarce, however, with the reclamation of government land for agricultural purposes, and with the ever-increasing competition of sheep raising, as an additional difficulty to be met. True, there are large areas of government forest reserves in the West upon which cattle may be grazed at low cost, but the figures given above indicate that of 1,229,000 cattle in the state of California in 1919 only 230,000, or 18.7%, were given grazing permits for that year.

Other ordinary expenses of the cattle raiser have increased more rapidly than the selling price of beef. He must now pay higher rent, build fences, cultivate some of his land for the raising of hay, and pay more for his foremen and cowboys. The problem of making a profit on beef under modern conditions hinges

largely on the cost of hay or other feed, as has been stated. This is even more true in the Northwest, where hay must be fed during the months when snow is on the ground. Fortunately large irrigation projects have made possible the raising of large quantities of alfalfa hay in the valleys of the Southwest. Alfalfa is a high-grade feed for fattening cattle and cheaper than corn. But even hay in the stack costs something (usually about \$6.00 per ton), and the price soars with the same causes which force the stockmen to buy feed, namely, failure of rains. It has been estimated that in parts of the Southwest 30 acres of pasture and one ton of hay are required to keep one animal one year. Obviously, with cattle selling on the hoof at 6c per pound and alfalfa hay at \$6.00 per ton, each animal must increase in weight 100 pounds a year to cover the cost of the hay alone. To cover the rental or interest on 30 acres of summer pasture, pro-rata of operating expenses, and original cost of the animal as a calf, it must put on another 100 or 150 pounds, making a total gain in weight of 200 to 250 pounds per year, which stock of good breed will just about do in this part of the country. In most parts of Southern California stockmen attempt to bring their cattle into beef condition without the use of hay except as a last resort. This requires unusually good pasture, supporting on an average one animal for every nine or ten acres, and favorable weather conditions. Ranges of such capacity are valued at about \$20.00 per acre, and bring from \$0.75 to \$1.25 per acre rental.

Methods of Computing Cost

Conditions under which cattle are raised in the Southwest are of course different in different localities. Arizona, for example, is largely a breeding ground, of large inexpensive ranges. Southern California, on the other hand, is primarily a fattening district of small individual herds, the owners preferring to purchase calves from Arizona and Nevada rather than to produce them from their own stock. Plenty of good grass, alfalfa hay and available beet and cotton fields make this possible.

Although it is impossible to give exact figures showing cost of cattle production,

the following represent to a fair degree the average of expenses involved in a normal year in Southern California, with the possible profit:

The stockman leases a range of 9,000 acres at 75c per acre, having a grazing capacity of 9 acres per animal. He stocks this with 1000 "weaners" brought in from Northern California, Arizona or Nevada at \$20.00 per head. The annual loss of calves, due to disease and exposure is assumed to be 2%, a fair estimate for this region.

FIRST YEAR:

1000 calves @ \$20.00.....	\$20,000.00
Annual loss of calves due to exposure and disease 2%.....	400.00
Interest @ 8% on \$20,000.....	1,600.00
Rent of 9000 acres @ 75c.....	6,750.00
Labor and salt, \$1 per animal.....	1,000.00
Cost of raising 1000 calves to yearlings.....	\$29,750.00
Cost each	\$29.75
Probable selling price of yearling.....	30.00
Margin, exclusive of owner's salary and equipment	25

Obviously, the cost of running the calves on such a range for the first year is too high to allow of a profit. To make his cattle pay out the stock raiser must hold them another year or two, until increase in weight, and higher quality of beef, due to the addition of fat, will bring a higher price per pound than can be realized from yearlings. If he runs them through a second and third year, the expense and possible profit, under the same normal conditions, would be approximately as follows:

SECOND YEAR:

Cost of 1000 yearlings to date.....	\$29,750.00
Annual loss due to exposure and disease, 2%.....	595.00
Interest @ 8% on \$29,750.00.....	2,380.00
Rent of 9000 acres at 75c.....	6,750.00
Labor and salt, \$1.00 per animal.....	1,000.00
Cost of raising 1000 cattle at end of second year	\$40,475.00
Cost each	40.48
Probable selling price, 800 lbs. @ 6c.....	48.00
Margin (18%).....	\$ 7.52

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THIRD YEAR:

Cost of 1000 cattle to date.....	\$40,475.00
Annual loss due to exposure and disease, 2%.....	809.50
Interest @ 8% on \$40,475.00.....	3,238.00
Rent, 9000 acres @ 75c.....	6,750.00
Labor and salt \$1.00 per animal.....	1,000.00
Cost of raising 1000 cattle at end of third year.....	\$52,272.50
Cost each	52.27
Probable selling price, 1050 lbs. @ 6c.....	63.00

Margin (20%) \$ 10.73

If the owner is forced to hold the cattle a fourth year, as many are doing now, in the hope of higher prices, the margin of profit recedes rapidly, provided, of course, that there is no advance in the price of beef. This is because the animals do not take on sufficient additional weight during the fourth year to compensate for the increased cost. On the same basis and under the same conditions as assumed for the first three years, the figures at the end of the fourth year would show a cost of \$65.25 per animal, against a probable selling price of \$66.00. Accordingly the margin of profit on "four-year-olds" under these conditions would be only 1%.

Cattle are rarely held a fifth year, except for breeding purposes. From the figures above the reason is obvious: the cumulative cost of maintaining a beef steer over five years will in all probability be higher than the price he will bring at the end of that time.

Varying Conditions

The above figures showing cost of production should not be taken too literally. Conditions vary so widely in different localities and in different years, that only sample sets of conditions can be offered. In the hypothetical case taken above the stock raiser did not own, but leased his land, and paid for every acre of it. Interest at 8% was allowed on the full value of his cattle. In few cases would a breeder actually be paying interest on full value, for the reason that he could not borrow to that extent. But if he borrows to the extent of only 75% on the value of his stock, the remaining 25% represents his own investment, and the above figures assume that he is to be allowed usual interest on personal funds involved. In some cases the stockman owns a few hundred acres, leases auxiliary pasture during a

part of the year, and perhaps feeds hay or beet tops at another time. In Arizona and parts of California where ranges are contiguous to government forest reserves and the owner controls the water supply of his neighborhood, he is allowed grazing privileges in the forest range at a very low charge. As a second typical set of conditions in such a region, say in the vicinity of Flagstaff, Arizona, we might take a man who owns a range worth \$5,000, utilizes a neighboring forest reserve during six months of the year at 50c per head, and feeds half a ton of hay per head in the winter. He stocks his range with 1000 cows at \$45.00 and 40 bulls at \$100 per head, the bulls depreciating one-half of their value over a period of three years. His calf crop would be on the average 70%, and his annual loss by disease and exposure 3%. It may be assumed that he could borrow one-half the value of his cows, \$22,500.00, for stocking and incidental expenses. If the computation is carried out, it may be seen that the owner's actual cost per calf will be \$12.50. If he can ship these cattle to California buyers at \$15.00 per head net, obviously he can realize a profit of 25%.

Feeders

In the neighborhood of Los Angeles and in the Imperial and parts of the San Joaquin Valley, there are many so-called "feeders," who make a practice of buying full grown but unfattened steers and cows and finishing them off on hay, beet tops, or cottonseed before they are sold to the packer. The feeder, of course, gambles on the cost of feeding being less than the increase in price of cattle fed. He expects not only to produce more weight, but so to fatten each animal that the quality of meat will bring a higher price per pound, usually about 3c, than that paid for the cattle on the range.

Whether or not the "feeder" makes money is dependent primarily on the cost of feed. Some animals are naturally poor and will eat 40 pounds of expensive hay per day and gain very little; other better breeds will put on up to 2 pounds a day with the same amount of feed. In recent years the cost of hay has been so great around Los Angeles that this type of feeding has given way to fattening on sugar

beet tops, and cottonseed meal. Sugar beet growers and sugar mills engage in feeding principally as an outlet for otherwise valueless by-products, and, of course, make good profit. The business of feeding, however, unless connected with some such source of cheap supplies, is a highly speculative one.

Importance of Breeds

It has been shown that the profit to be made on cattle depends much upon the amount of weight that can be added to a steer by the expenditure of a given amount of time and money. In this connection the matter of breeds plays an important part. It will be remembered that in the early days of cattle raising in the Far West, when land was free and other expenses comparatively low, most of the cattle of this region were "longhorns," which had migrated into Texas from Mexico. As the margin of profit between cost and selling price became narrower, it was realized that the longhorn ate too much for the amount of fat produced. Too large a percentage of the animal was horn, skin and bones. Since that time stock raisers of the country have given more and more attention to stocking their ranges with breeds of cattle which would take on fat readily and dress out a larger percentage of beef. Nowadays the stockman expects his cattle to dress from 55 to 60% good meat, whereas 45% was a high average with the old longhorns. In the Middle West, and even in the Northwest, results in breeding and cross-breeding have been carried to a degree of perfection which probably cannot be hoped for in the Southwest for many years, if ever. Much attention is being given to the matter, however, and among the cattle of Arizona and Southern California a large percentage of Herefords and Durhams is already found, though the nearer the Mexican line is approached, the poorer, as a rule, the quality of stock becomes. The California Cattlemen's Association foresees that the success of the cattle industry in this state depends greatly upon the matter of developing good breeds, and is bending every effort to that end. There is some disagreement as to breeds best suited to this part of the country, but the consensus of opinion among experienced stockmen is that

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Durham cattle ("Shorthorns") fatten into beef more quickly than others and are the best stock for valley ranges, while the harder Herefords are better rustlers and will maintain themselves more satisfactorily on mountain ranges.

Abnormal Production Costs

That the market price of beef cattle is now (August, 1921) far below the cost of production can be proved. On previous pages of this report, figures are given showing that under normal conditions, with the factors of expense at a certain level and with cattle selling f.o.b. ranch at 7c per pound, a fair margin of profit to the cattle raiser was possible, say 10%. The important factors were seen to be feed, labor and interest on cattle paper. The following figures will illustrate the degree to which these factors increased in cost from the pre-war period to the years 1919 and 1920. It should be borne in mind that it was during these latter two years that cattle now ready for market were raised.

	Pre-war level	1919-20	Percent of Increase
Feed, alfalfa hay.....	\$ 6.00	\$12.00	100
Grass pasture grazing fee per acre.....	.75	1.25	66.6
Feed-lot charges per day, beet sugar tops, per ton basis.....	.15	.60	300
cottonseed and hulls, per day30	.55	83.3
Labor, wages of herders	30.00	90.00	200
Interest on cattle paper	8%	10%	25

A method was given above, with qualifications, for estimating the cost of carrying cattle through the second and third years of their raising, under normal conditions. Using the same process, and raising the expense items to the percentage of increase just shown, the cost of raising the three-year-old cattle now on the market would seem to have been approximately \$86.66 per head. The present market price for such animals is \$63.00 (1050 pounds at 6c per pound). Obviously the producer is now facing a loss of \$23.66 per head (27.3%).

Before cattle can be produced at a profit again in this part of the country, one and probably both of the following changes must come about: (1) A decrease in the cost of production; and (2) A rise in the market price of beef.

Some cost factors are already falling. Range rental has declined about 25%, feed 14]

yard charges 30%, and labor 35%. Alfalfa hay is back almost to normal. But interest rates still remain high, with money even harder to obtain.

When the beef market will recover is a problem that all cattlemen are trying to solve. They believe that the low level just reached is unwarranted and cannot be maintained long. Consequently the advices going out from the California Cattlemen's Association and other friends of the stockmen are to hold for better prices. Most of them are in need of funds for common living expenses, however, and must sell at any price.

Market Hindrances

Apparently the packers are selling dressed beef at only a legitimate profit above cost. The ratio between prices paid by them for cattle on the hoof and prices at which they sell dressed beef to the butchers, is only slightly higher than before the war, and the difference may be accounted for by the enormous decline in the price of by-products, a source from which the packer ordinarily expects to cover overhead expenses.

Producers and packers agree in the belief that retail butchers are doing much to delay recovery of the beef raising industry by exorbitant charges for meat over the counter. Good meat is made to remain an expensive luxury, and the masses will not buy it. Demand and consumption decrease and the market lags.

A beef when slaughtered dresses out at about 50%. Therefore a 1000-pound steer would furnish 500 pounds of beef, for which the butcher would have to pay \$67.50 at the present price (13½c lb.).

From the following table the maximum gross profit which may be realized from the sale of a beef carcass at present prices may be calculated:

COST, 1 beef carcass, 500 lbs. @ 13½c	\$67.50
SELLING PRICE:	
Porterhouse and club steaks.... 35 lbs. @ 55c	\$19.25
Sirloin steaks.... 40 " @ 43c	17.20
Rib roasts..... 45 " @ 40c	18.00
Round and chuck steaks and rump roasts175 " @ 35c	61.25
Boiling meat and miscel.205 " @ 8c	16.40

Total 500 lbs. \$132.10
Gross profit (95.7%) on cost price 64.60

The retail prices given were obtained by personal inquiry of six representative butcher shops in various parts of Los Angeles. The scale of proportionate weights is that recognized by packers and published in Swift & Company's year book for 1920.

It would appear from these figures that at current prices butchers in this vicinity can, with efficient cutting, make about \$64.60 gross on each carcass. To arrive at net profits it is, of course, necessary to subtract operating expenses. For this purpose we may take the shop which sells one carcass per day.

Investigation indicates that cutters are paid about \$6.50 per day. One cutter can handle one carcass per day. Rent, ice and delivery expenses may run as high as \$11.00 per day. If all of these expenses are charged to beef sales alone (beef constitutes about 38% of all meat sold) there would be a total of \$17.50 per day to be deducted from the gross profit of \$64.60.

For the shop handling one carcass per day, therefore, the net profit would be \$47.10 per day or per carcass, which is 35.7% net if figured on the selling price of the carcass, or 68.7% if calculated on cost price. Average retail meat shops handle from four to five carcasses per week. Large dealers handle up to five and ten per day.

While these profits seem unjustifiably high, retail meat dealers contend that in actual practice their net profits on all meat sales are considerably less than they appear in theory. It is said that at present pork sales often show a net loss, which must be counterbalanced by additional profits on beef. Butchers claim also that due to the insistence of housewives on small, choice cuts, considerable waste is experienced in trimming. They assert that they experience considerable loss from shrinkage due to the necessity of keeping meat in storage because there is not a uniform demand for all cuts from a given

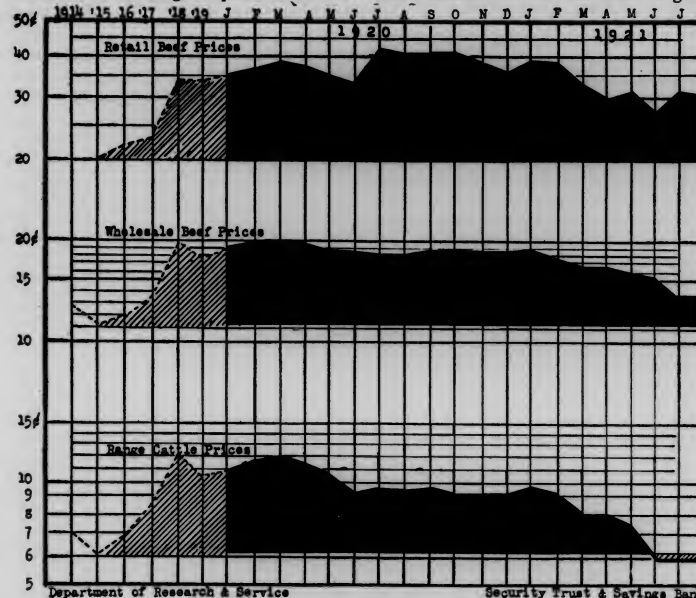


CHART No. I
Comparative Trends of Retail Meat Prices, Wholesale Meat Prices and Range Cattle Prices, 1914-1921
(Scale is arranged logarithmically to reflect relative changes)

carcass. It is also contended that few cutters are sufficiently skillful to cut out of a carcass the percentage of good meat shown to be possible by Swift & Company's scale, indicated above.

Whatever the facts, examination of the records of R. G. Dun & Co. reveals that there have been no failures among Los Angeles meat dealers in the past year.

Marketing and Packing

The marketing of beef in the Southwest is done either by local butchers, or through packing-houses at the main centers of population. In California consumption of beef so nearly equals production that the packer's task is largely one of local distribution.

Although there are stockyards for the assembling and distribution of cattle at Denver, Colo., and at Portland and Seattle in the Northwest, they are unknown in the Southwest. Cattle apparently ready for market are shipped to the meat centers and sold directly to packers for slaughtering, or if not in killing condition on arrival, are sold to dry-lot feeders in the vicinity, who fatten the animals on alfalfa hay or beet tops for a few months, and then turn them over to the packers.

It is claimed by many that the marketing of beef in this region is handicapped by the absence of a union stockyards with improved packing and canning equipment, at some such center as Los Angeles. There is no central point at present to which cattle may be shipped for segregation into "feeders" and "market fat." Consequently it is contended that stockmen are much at the mercy of the buyers, who are usually agents of the packers. In the absence of a central cattle market, these men go out to the ranges and drive their bargains with the individual raisers, who are often ignorant of prices and general market conditions. The buyers will select the best of the herd and leave the ranger with a poor grade of cattle on hand. Many of these rejected animals will be shipped down to feed-lots in the valleys and at the packing centers. Among them will be old cows and runty steers which could not be fattened by even the most expensive dry-lot feeding. If there existed stockyards for proper segregation,

with well-equipped packing establishments close at hand, these poorer animals could be culled out and slaughtered immediately as "canners." This would prevent the waste of much good feed.

It is thought by some that a union stockyards would do much to break the power of large buyers who are now able to "bear" prices to a certain extent through the inability of shippers to find a competitive market for their offerings.

On the other hand some of the largest cattlemen do not favor the establishment of stockyards, claiming that through them the packers would secure even a stronger hold on the market. One of our largest producers in the South, Mr. Fred Bixby of Long Beach, is at present opposing a plan of the Los Angeles Chamber of Commerce to have a union stockyards established at this center. Mr. Bixby, an ex-president of the California Cattlemen's Association, contends that such stockyards would fall into the control of the large packers and become a means of dictating prices to the producer. With the beef crop of the state regularly gathered into stockyards, Mr. Bixby declares, the supply would be determined easily at the beginning of each market day, and whenever a surplus became apparent, interleague packers could force owners to accept whatever they pleased to offer. Freight charges would make impossible the shipment of stock to other markets and high feed charges at the stockyards would make it unprofitable to hold for better prices. Mr. Bixby also contends that there is no market for California beef other than for local consumption, and therefore no need of concentrating cattle for shipment out of the state.

Though cattle are slaughtered and sold by butchers in even the smallest towns, the chief beef marketing centers of this region, south of San Francisco and Ogden, and west of Denver, are Los Angeles and Phoenix. Los Angeles handles about five times as many cattle annually as Phoenix, and slightly outranks her nearest rival in the West, San Francisco. The demands of the San Francisco market are augmented by the regular purchases of the naval supply base at Mare Island, amounting to some 20,000 head per annum. There are other minor packing centers in the San

Joaquin Valley and along the coast of Southern California, but these are relatively unimportant except for supplying local demands.

The following figures, most of them obtained from reliable sources, are believed to be fairly accurate estimates of cattle slaughtered in cities of the Southwest, with a comparative figure for San Francisco:

	Slaughter of Cattle and Calves 1920
Los Angeles, including Vernon	154,056 head
Phoenix, Ariz.....	30,318
Pomona	6,705
San Diego	10,000
Anaheim	6,800
Santa Barbara	3,000
Fresno	1,950
	212,829
San Francisco	126,321

The slaughter for the state of California during 1920 was 495,167 cattle and 86,044 calves, or a total of 581,211 head.

Packing at Los Angeles is largely in the hands of six large concerns, two of which (Cudahy & Company and Wilson & Company) are local establishments of members of the so-called "Big Five" at Chicago. The large independent companies are the Hauser Packing Company, the California Dressed Beef Company, the Standard Packing Company and the New Market Company.

The packing-houses of Los Angeles draw cattle from the entire southern part of the state, as well as from the coast ranges as far north as Monterey County, and from the San Joaquin Valley south of Stockton. In the more northerly districts Los Angeles buyers come into competition with buyers from San Francisco, either overbidding or underbidding each other according to price quotations at their respective bases. Because of the slight surplus shipped East every year (averaging about 25,000 head), Los Angeles buyers, with the shorter rail distance to the Middle West packing centers of St. Joseph, Kansas City and St. Louis, ordinarily have the advantage.

Besides the slaughter of cattle produced in the southern part of California, the packers of Los Angeles kill large supplies drawn from Arizona, Utah, Idaho, Texas and Nevada. Of 94,665 head shipped to

California abattoirs from these and other states last winter, Los Angeles took 48,575, or 51%, while 34,754, or 37%, went to San Francisco. It should be stated that the total for last year was considerably above the seasonal average. During February, 1921, there occurred the unusual phenomenon of a higher price for cattle on the Pacific Coast than at Chicago, with resulting heavy importations.

Prices

The outbreak of the war in 1914 saw the almost immediate rise in beef prices in this country. The uptrend was at first gradual, but became increasingly steeper. To meet the enormous demand of the European countries for beef, and with the supplies of India, Australia and Russia cut off, the United States, Argentina and Canada were called upon greatly to increase production. The producers of America, stimulated by propaganda of the Food Administration, and probably even as much by soaring prices, rose to meet the emergency. Our exports of beef increased tremendously. A shortage was created in this country and prices advanced rapidly, until they reached a peak in July, 1918, of 11c per pound, 83% above the pre-war level of 6c. The end of the war saw some hesitation in the market, with prices holding fairly even at 10c. But the expected deflation was not yet to come. Export demands continued and during the period of extravagance in the country the public insisted upon plenty of everything, at any cost.

Prices advanced again until they reached their highest peak of 12c in March, 1920, 100% above normal. Such prices were enjoyed by the stockmen only for a short time, however, when the long-feared but unprovided-for deflation began in April. From then until within the past few weeks the curve has been steadily downward, reaching the pre-war level in June, 1921, and dropping below it in July.

At this date, August 15th, a slight recovery in beef prices is noticeable at Chicago, though the market at Los Angeles is as yet unchanged.

Various factors have combined to force the rapid decline of beef prices. First came a reaction by the public, consequent

to the era of heedless extravagance in this country. People began to buy smaller cuts of meat and fewer of them. Exports fell away, declining from 6,023,338 pounds of fresh beef exported from the United States in March, 1920, to 508,230 pounds exported in March, 1921. The accumulations of overproduction were thrown upon the market, the speculative element collapsed, and the ever-steadying by-product market disappeared. Cattle loan associations which had advanced large amounts of money to cattlemen demanded liquidation and settlement, and more cattle were thrown on to a badly overflooded market, until the price was forced down to below cost of production.

Figures showing the relative decrease in farm prices of beef cattle in each of the important cattle states of the country, published by the United States Department of Agriculture, are of interest in determining which of the cattle states have suffered the most radical price recessions. An examination of these figures would show that the greatest declines for the period ending May were experienced in Illinois and Kansas, where the farm value of cattle dropped from about \$10.00 to \$6.20 per 100 pounds, or nearly 40%. The average decline for the country as a whole was 33%. In California the recession was a little under the average, 32.3%, while South Dakota and Arizona seem to have been the most fortunate of the states in the matter of prices, suffering declines of only 20.6% and 22.2%, respectively, up to May of this year.

Decline of By-Product Prices

It has been stated that one of the causes of decline in cattle prices has been the drop in by-product values. This has been especially true in the case of hides, and it goes a long way in explaining why the packer was not able to pay more for cattle on the hoof this spring, with his selling price of dressed beef at 15 $\frac{3}{4}$ c, than he paid in 1913, with dressed beef at 12 $\frac{3}{4}$ c. It should be understood that the packer ordinarily depends upon the value of by-products to pay more than the cost of dressing. The normal cost of slaughtering and dressing a beef is about 10% of its value. Upon an \$80.00 steer it would be

therefore about \$8.00. The usual value of by-products (hides, offal and fat) from such an animal is about \$15.00. Accordingly in ordinary times when paying \$80.00 for a steer, the packer deducts \$7.00 as by-product values over and above cost of slaughtering, and reckons \$73.00 as his cost price of the beef dressed. At present, due to the low level of by-products, he is unable to deduct anything, but must add about \$2.00 for cost of dressing, over and above the amount he can realize from the sale of by-products.

Hides, which are the most valuable by-products from cattle, brought about 15c per pound before the war. At the end of 1919 the price went up to over 30c per pound (green hides, California steers), and during the spring of 1921 declined to about 5c per pound. Other less important by-products declined in value as well. The price of edible tallow dropped 46%, from 12 $\frac{3}{4}$ c per pound in 1920 to 6 $\frac{3}{4}$ c in 1921. Oleo stearine declined from 13 $\frac{1}{4}$ c to 9 $\frac{3}{4}$ c (25%), fertilizer (dried blood) from \$8.20 to \$2.55 (89%) per unit, and tankage from \$7.12 $\frac{1}{2}$ to \$2.37 $\frac{1}{2}$ (67%), during the same period.

Obviously, with the decline of by-product values, the spread between packers' buying prices and selling prices became greater. Through the courtesy of two of the largest packing establishments in Los Angeles, it has been possible to gather figures showing the changing relation between the cost of steers to the packer and his selling price, during the past nine years. The following selections from the table are typical:

Date	Packers Buying Price	Packers Selling Price	Spread	Price of Hides on Same Date
1913	7 $\frac{1}{4}$ c	12 $\frac{3}{4}$ c	70%	15c
1917	8 $\frac{1}{2}$	14	65	20
1919 (Sept.)	11 $\frac{1}{4}$	17 $\frac{3}{4}$	51	31
1921 (May)	7 $\frac{1}{2}$	15 $\frac{3}{4}$	110	8

It will be seen that in 1913 when packers were paying 7 $\frac{1}{4}$ c per pound for cattle delivered, and hides were at 15c, they were selling dressed beef at 12 $\frac{3}{4}$ c. This allowed a margin of 70% to cover wastage and profit. At the end of 1919, when hides reached their highest point, beef which cost the packer 11 $\frac{1}{4}$ c on the hoof, was sold at 17 $\frac{3}{4}$ c when dressed, a margin of only 51%. Examining the figures for recent months, it appears that in May,

1921, when the cost of cattle to the packer was 7 $\frac{1}{2}$ c per pound (the same as in 1913), and hides were below 8c, the selling price of dressed beef for the same date was 15 $\frac{3}{4}$ c. The margin in this case was 110%, compared with one of 70% in 1913. Plainly the price of hides at any given time has a direct effect upon the relation between cattle and dressed meat prices.

That the difference between packers' buying and selling prices varies inversely with the price of hides, is clearly shown by the accompanying Chart No. II. As the price of hides gradually declined from 1919, the trend of difference between cost and selling price was upward. Soon after the hide market reached its lowest point in 1921, that difference reached its peak. Despite the influence of receding by-product values, the trend of wholesale beef prices has followed closely the price of cattle on the hoof. Wholesale beef prices went up with cattle prices in 1918,

and every decline in cattle prices since has been reflected promptly in wholesale quotations. The fact that the percentage of decline during the last few months has been less is accounted for by the low value of by-products. Chart No. I, which is sympathy which has existed between range presented on Page 15, illustrates the cattle prices and packers' selling prices, respectively, and seems to corroborate the contention of packers that they are not responsible for the present high prices of meat.

Butchers in Los Angeles make the assertion that certain cuts of beef can be had at their shops more cheaply today than they could be purchased before the war. This is true of the cheaper cuts, such as boiling meat. An examination of periodical price quotations advertised by the butchers during the war period and down to date, reveals the fact that whenever the good cuts of beef went up in price, the



CHART No. II

(A) Percentage of Difference Between Cattle Prices and Wholesale Beef Prices

(B) Value of Hides During the Same Period

cheaper cuts went down. The two curves representing the respective price trends form a somewhat symmetrical figure. The high points in the curve representing steaks and roasts are opposite the low points in the curves depicting pot roast and boiling meat prices. The reason is obvious: people developed extravagant tastes during the war and the aftermath period, and many still demand the choice cuts. The modern housewife does not find time to cook roasts and boiled meats, though these in fact have a higher food value than do steaks and chops. Seventy-five per cent of a beef carcass, however, is of these cheaper cuts of meat. They must be disposed of in some manner, and the butcher reduces their selling price in proportion to the rise in demand (and price) of the more popular cuts. The result is that at present boiling meat and pot roasts can be had at from 5 to 10c per pound, while porterhouse and club steaks average about 65c.

On the whole, retail prices are still 32% above normal, though they have declined some 37% since the peak of July, 1920.

Meanwhile range cattle prices declined 50%, to a point below normal, and wholesale prices declined 34%, to a point only 6% above that of 1914, in spite of the low value of by-products. Clearly retail meat prices have not been keeping pace with cattle and wholesale prices in the long-awaited recession. It is true, however, that retail prices reached their highest point two to three months later than cattlemen began to receive their top prices, and this may be the basis of a hopeful prediction that retail prices are merely delaying the drop accordingly.

Financing the Cattle Industry

The cattle industry is financed both by banks, which make loans directly to stock raisers, and by privately-operated loan associations, which purchase and endorse cattle paper for rediscount through the banks. A cattle loan is secured by the promissory note of the borrower, together with a chattel mortgage on his livestock and equipment, and sometimes by a mortgage on his real estate.

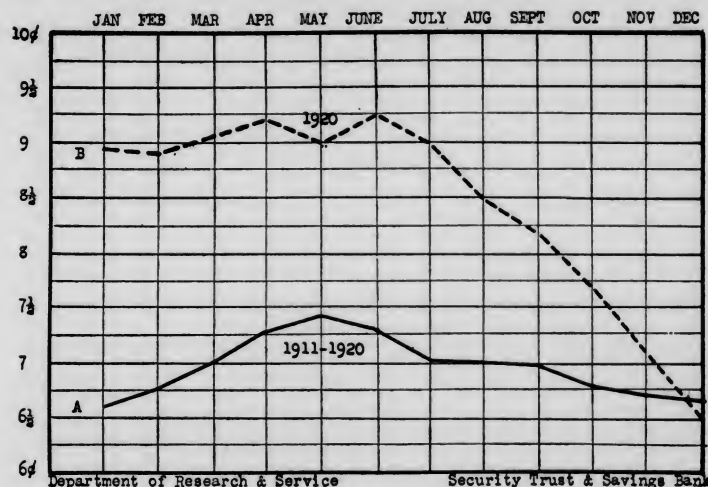


CHART No. III

Showing (A) Seasonal Price Variations in Cattle Prices for the Ten-Year Average, 1911-1920

(B) Price Variations for the Year 1920

In the stock raising regions of the Middle West, financing through loan associations is undertaken extensively by large packing companies, who are interested in keeping the industry in a healthy condition to the end that there may be a steady flow of livestock to the packing-houses. In Southern California and Western Arizona cattle loan associations have only recently appeared. Cattlemen have heretofore relied almost entirely upon bank loans and upon money advanced by private individuals. In the southeast region of Arizona, where cattle raising is most intense in that state, stockmen have been financed by loan associations operating from the Middle West packing centers. Most of these companies are controlled by packing interests.

In the past few years a comparatively small number of cattle loan associations have begun business in Southern California, with offices at Los Angeles. Most of them are closely allied with packing interests. Only one of the number has thus far handled a considerable volume of business.

These cattle loan associations have come into existence mainly on account of the difficulties experienced by cattlemen in securing bank loans. Banks have been proverbially cautious in accepting cattle paper. Livestock security is necessarily of changing value, inspection is difficult and expensive, renewals are usually requested, and enterprises too often of a speculative nature.

Interest of Packers in Loan Associations

Meat-packing companies, however, are vitally interested in the maintenance of steady production of cattle on the ranges and the fattening of beef by feed yard operators. They have, therefore, encouraged and assisted the incorporation of cattle loan associations in stock raising centers, for the better financing of the industry. These associations on the whole develop highly efficient organizations. The officers ordinarily include practical cattlemen and experienced livestock buyers, who are familiar with every angle of the industry. Stockmen actively engaged in raising cattle are made managing directors, inspectors are appointed in the range districts, and

accurate records of pasturage and weather conditions, quality of breeds, and prevalence of disease are collected, with other information of interest to the business. Through such organizations cattle loan associations are equipped to render valuable service both to cattlemen and to the community which is interested in the sound development of the livestock industry.

One danger in extensive financing by cattle loan associations, however, lies in the tendency on the part of some of these institutions to advance money too liberally, sometimes on full value of cattle security, in order to "boost" the business. Such practices result in disaster to borrowers and cause instability in the market when risky loans are called in before stock can be profitably disposed of. Unhappy results of this kind are being experienced at present, because cattlemen are forced to liquidate in a depressed market heavy borrowings made during the period of inflated values. Another element of danger in loan association finance is said to exist in the opportunity which is afforded the packers, through their control of such companies, to keep borrowing stockmen in their power. The cattle industry is ordinarily operated on a large scale. The cattleman must make heavy borrowings for the purchase of stock and the payment of running expenses. If banks are prevented by legal restrictions or by cautious boards of directors from advancing the required funds, the stock raiser is dependent upon the loan associations, and consequently upon the packers who financially underwrite these associations. If he borrows funds for the purchase of stock or feed, and is caught at maturity of the loan with a dull market, it is to his interest to hold for higher prices. The market may be below his cost of production, in which case liquidation would mean an actual loss. In such a case the packer controlling the association which advanced the loan, could demand immediate payment, and perhaps foreclose on the mortgage, either bidding in the cattle at a low price or forcing their sale on a depressed market.

It is believed, however, that such practices on the part of packers are exceedingly rare. Accusations come mostly from disgruntled breeders or feeders who,

through mismanagement or speculation, have not been able either to meet their obligations within a reasonable length of time or to show prospects of ever paying out. Packers are more interested in maintaining a constant and stable market than in realizing occasional profits by forced sales, and it is to be doubted that they often use their financial control over stockmen to force down cattle prices.

How Loans are Made

The method of making loans to cattlemen by banks and loan associations is fairly uniform. The prospective borrower files a written application, accompanied by a sworn statement of his financial condition. The statement includes a description of the stock which he proposes to offer as collateral, his facilities for taking care of them, real estate owned or leased, and outstanding mortgages or obligations. The bank or loan association checks up on this statement by private inquiries, and county records are examined to determine whether the applicant's statements are correct as to outstanding obligations. A cattle inspector is then sent out to count and examine the borrower's stock. He reports as to quality of breeds, condition of pastures, facilities for taking care of the stock, and the general reputation and ability of the applicant. If, upon receipt of the inspector's report, the loan is granted, the borrower is required to sign a promissory note for the amount advanced, and to execute a chattel mortgage on the stock and its increase, feed on hand, and sometimes on equipment and real estate. Although banks and the more conservative loan associations refuse to loan more than from 50% to 75% of the value of stock given as collateral, less careful associations consider that an ample margin of safety lies in the probable increase of the herds, i.e., in birth of calves and increase in weight of steers.

Cattle loans run ordinarily for six months. This term is adequate for the "feeder," who buys full-grown steers from the range and fattens them for beef in three or four months. His period of turnover is short. The stock breeder, however, usually requires a longer period for liquidation, and consequently must secure re-

newals, (wherein lies the chief defect in the present system of financing). Renewals require new paper and new inspection of stock, adding further expense to the negotiation, and the semi-annual payment of interest keeps the stock raiser in a constant state of unrest, making it difficult for him to delay the sale of stock until the best prices are obtainable. Yet it is through the short-term feature of cattle paper that banks and cattle loan associations are given their best means of protection. They may refuse to renew loans, after six months, to borrowers who do not show evidence of being able to meet their obligations. As a matter of practice, however, it is usually understood that stock breeders may secure a reasonable number of renewals of their notes, since it is, of course, to the interest of the lender to carry them until a time when their cattle may be disposed of at a profit and all obligations met in full. Such renewals should be granted with caution, however, and only after careful inspection has been made of cattle securing the loan, condition of the pasture, and a forecast of beef prices. Failure to check up on borrowers in this way, and a too liberal policy in accepting cattle paper by some of the banks and loan associations last year, has placed them in such a position that they must either repeatedly renew inadequately secured loans, until cattle prices shall have recovered, or foreclose and take heavy losses.

The gross profits derived by cattle loan companies is measured by the difference between the interest collected from borrowers and the discount rate of the bank through which the paper is liquidated. The average cost of making cattle loans, including inspection, is estimated at 1% of the amount of the loan. The prevailing interest rate imposed by cattle loan associations at the present time is 10%, sometimes with additional charges amounting to from 1% to 2%, "to cover cost of inspection." The rates at which banks are now discounting cattle paper range from 7½% to 8¼%. The cattle loan associations therefore have a possibility of making a gross profit of from 1¾% to 4½% on each loan. The usual profit is said to be 2%.

Cattle paper is self-liquidating. It is short-term paper and when endorsed by re-

liable cattle loan associations becomes good "two-name" paper. It should therefore enjoy a high degree of liquidity. Loan associations dealing in cattle paper may handle large amounts, running into the millions of dollars annually, with comparatively small working capital. When these associations grant loans which are too large for discount through any one bank, such loans are parcelled out among several banks, much after the manner of the Lloyd insurance risks. Banks accepting parts of individual loans, however, must do so with extraordinary care, since the division of the cattleman's note and mortgage into parts affords opportunity for sharp practices.

When Money is Needed

The peaks of activity in cattle loan discounts are reached in the spring and fall seasons of the year. Cattlemen usually need money for the purchase of new stock for the ranges in April and May. Holders of leased ranges ordinarily pay their rent in the fall. This is also the usual time for settlement of ordinary bills for groceries, feed and supplies.

Figures showing the volume of cattle paper dealt in monthly during 1920 and 1921 by loan associations in this region indicate that last year such associations advanced to cattlemen approximately \$5,000,000, the largest advances having been made in May and November. For the first eight months of 1921, loans from the same sources have amounted to about \$2,000,000, the largest aggregate amount for any one month occurring in April. The value of cattle paper now outstanding on the books of local cattle loan associations is thought to be less than \$2,000,000.

Reports from the Federal Reserve Bank of the Twelfth District indicate that the volume of live stock paper rediscounted through banks so far this year has been about \$24,000,000, ranging between \$3,500,000 and \$4,500,000 per month. The largest advances were made in April and June. The total value of live stock paper held by the Federal Reserve Bank on the last day of June, 1921 (the latest date for which figures are available) was \$14,633,000. The figures published by the Federal Reserve Banks include all classes

of livestock paper. Separate records of cattle paper are not kept, but cattle loans undoubtedly constitute the larger part of the sum of all livestock loans in this district.

Shortage of Cattle

Much has been said recently of the shortage of beef cattle in this country, and official surveys indicate that there are in fact less cattle per capita now than there were in 1920, though the shortage is less marked in California and Nevada than in other states. The actual shortage in numbers for individual districts is estimated by livestock associations approximately as follows:

Cattle Shortage, 1921 as Compared with 1920	
Northern States.....	0%
Southern States.....	50%
Central States.....	25%
California.....	10%
Nevada.....	0%

Census figures for California show the number of beef cattle in the state to have been 1,229,036 in January, 1920. Unfortunately it is difficult to compare these figures with those of the 1910 census, since the count for the latter year was taken as of April 15, three and one-half months later in the year than that for 1920. The 1910 count, therefore, included a large number of spring calves which would not have been taken in the 1920 census. On the other hand, the figures for 1910 were, of course, reduced by the number of cattle slaughtered between January 1 and April 15.

Probably the best comparable records available are those of the Bureau of Crop Estimates, United States Department of Agriculture, which publishes cattle census figures periodically. A study of these records indicates that while there is an actual shortage of cattle in the United States as a whole, it is not as great as livestock publications make it out to be.

Perhaps the best way of determining whether or not the cattle supply is below normal, is on a per capita basis. Figures for Arizona, Nevada, and the average for the United States as a whole may be computed on this basis as follows:

	Cattle 1910	Per 1000 Inhabit- ants	Cattle 1920	Per 1000 Inhabit- ants	De- crease or In- crease
California.....	1,339,000	563	1,634,000	477	-15%
Arizona.....	796,000	389	1,000,000	399	-23%
Nevada.....	432,000	527	535,000	691	+31%
United States.....	41,178,434	446	44,750,000	423	-5.3%

More significant than the slight per capita decrease in the total number of beef cattle in the country, however, is the comparatively large decrease in the number of cows, i.e., reproductive stock. The census shows that there were 100,000 less cows in California in 1920 than in 1910, a decrease of 33%, when there should have been an increase of 44%, to keep pace with the population. The reason for this is found in the fact that stockmen, hard pressed for money, and unable to secure loans to carry them through, have been selling cows as well as steers for beef. The California Cattlemen's Association estimates that in California the normal ratio of cows to cattle slaughtered is 25%, while this year it has been 38%, and predicts a further shortage of breeding stock next year.

Consumption of beef in this state is approximately 500,000 head per year. At the time of the census (January, 1920), there were 441,000 cows of calf-bearing age (2 years and over) available. On the basis of a 70% calf production, about normal for the state, these would yield 308,000 calves per year, about 25% of which should be kept for breeding purposes, leaving 231,000 calves to grow up for beef. Of the 441,000 breeding cows now on farms and ranges, one-fifth, or 88,000, would be available for slaughter each year, since a cow is not kept for calf bearing after it is 5 years of age. There are also about 800,000 dairy cattle in the state. These will supply about 40% of our beef, or 200,000 head, this year.

From the three sources of supply, therefore, we would obtain 231,000, 88,000 and 200,000 head, respectively, or a total of 519,000, against a consumption of 500,000. The apparent margin of 19,000 is just about sufficient to cover the regular annual 4% loss from disease and

exposure. Obviously, therefore, if there is any considerable decrease in the number of breeding cows which were available last year, the coming supply of beef in this state will be less than that of previous years.

Consumption Below Production

Compensating for the decreased production of beef cattle in the country during the past year, and probably a cause of any such shortage, is the decreased consumption of beef. The per capita consumption of beef in 1919 was 60 pounds. In 1920 it had dropped to 56.4 pounds, a decline in one year of 6%. More startling than these are the figures for the period from 1910 to 1920. During this time beef consumption per person in the United States decreased from 78 pounds to 56.4 pounds, a decline of 27%. Decrease in consumption has been, therefore, much greater than decrease in production, and this without taking into consideration the almost complete cessation of beef exports.

From these facts it would appear that although there is a slight numerical shortage of cattle this year, with prospects of an even smaller number on the ranges next year as a result of present slaughtering of breeding stock, the situation cannot be regarded as alarming from a food standpoint. There is no danger of a meat famine. When the supply of beef becomes scarce, relative prices will cause people to eat less beef and more pork and mutton, or even substitutes for meat. As measured by demand there is no shortage of supply at the present time. Either demand must be brought back to normal by an adjustment of retail meat prices to popular buying power, or the supply even further reduced, before the economic law can operate to raise cattle prices.

An Offer of Service

The Department of Research and Service of the Security Trust & Savings Bank is prepared to furnish complete and accurate information regarding any line of business, whether commercial, agricultural or industrial, of Los Angeles and Southern California.

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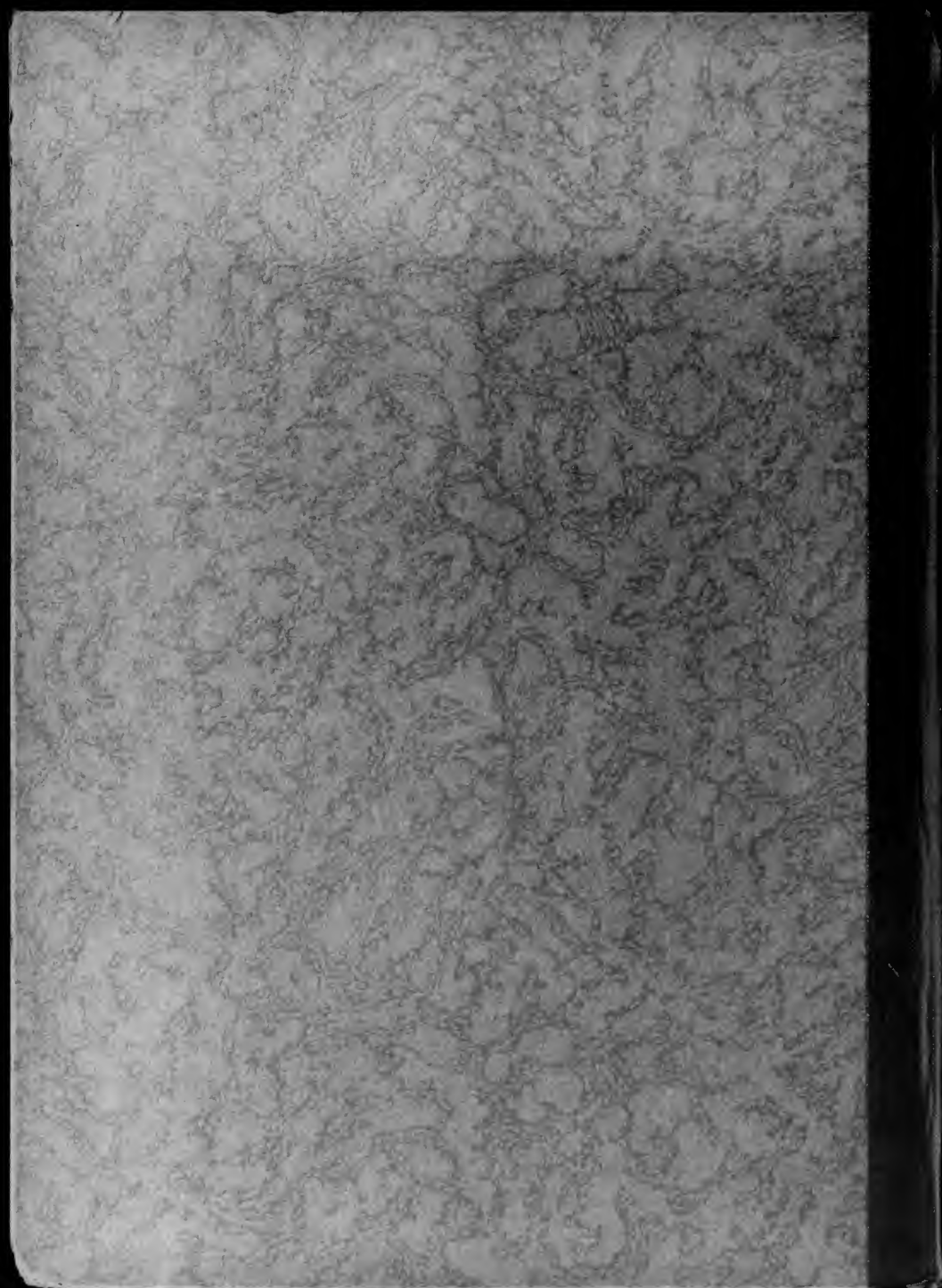
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